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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER	
TATE, CHRISTOPHER ROBIN	
ART UNIT	PAPER NUMBER
1655	
MAIL DATE	DELIVERY MODE
08/06/2009	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/716,168	ZHAO ET AL.	
	Examiner	Art Unit	
	Christopher R. Tate	1655	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1,3,5,7,9,11 and 12* is/are pending in the application.

4a) Of the above claim(s) *11* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1, 3, 5, 7, 9, and 12* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

The amendment filed 14 May 2009 is acknowledged and has been entered. Claims 1, 3, 5, 7, 9, and 12 have been examined on the merits (claim 11 remains withdrawn from consideration).

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claim Rejections - 35 USC § 102/103

Claims 1, 3, 5, 7, 9, and 12 stand rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Motoda (JP 57/206391 - full English translation attached), or Ganesan et al. (US 2001/0033880), or Bouwens et al. (US 5,879,730), or Goodsall et al. (US 6,113,965) for the reasons set forth in the previous Office action which are restated below.

The claims are drawn to a product-by-process (having various intended uses) - i.e., a product produced by mixing a measure of green tea polyphenols with a measure of tyrosinase. Based upon the teachings of the instant specification, it is apparent that the product made via the instantly claimed step of mixing green tea polyphenols with tyrosinase results in a black tea product containing high levels of various naturally-occurring theaflavins (the pigmented oxidized compounds formed from green tea) therein.

Each of the cited references discloses a black tea product which appears to be identical to the presently claimed product since they are prepared in a manner similar to that instantly claimed/disclosed and/or comprise high levels of theaflavins therein, as discussed in detail below.

Motoda teaches a product produced by mixing a measure of a commercial green tea (which would inherently comprise naturally-occurring polyphenols therein) with a measure of tyrosinase (see entire English translation thereof including page 7 - Embodiment 5).

Ganesan et al. teach a black tea product which is prepared from a measure of macerated green tea leaves (please note that macerated green tea leaves would inherently comprise naturally-occurring polyphenols - such as EC, ECG, EGC, and EGCG, therein) via a process which preferably includes exposure to a measure of an oxidative enzyme such as tyrosinase (or other oxidative enzyme such as polyphenol oxidase or peroxidase) so as to enhance color and flavor of the final black tea product (see entire document including paragraphs [0009] - [0012], [0027] - [0028], and claims including claims 7-8.).

Bouwens et al. teach a black tea product which is prepared via a process which includes the step of exposing a measured solution of green tea (which would inherently comprise naturally-occurring polyphenols - such as EC, ECG, EGC, and EGCG, therein) to a measure of one or more oxidative enzymes such as a polyphenol oxidase (including tyrosinases), laccases, peroxidases, and tannases so as to optimize the intensity of color of the final desired black tea product as well as to increase the theaflavin content therein (see entire document including col 1, line 16 - col 3, line 27, and Examples).

Goodsall et al. teach products comprising high levels of black tea theaflavins therein which are prepared via exposing a measure of green tea polyphenols with a measure of an enzyme (i.e., tannase) which is used to cleave the gallate groups from the corresponding green tea polyphenols, whereby the preparatory method can also include further purification of the theaflavins therein (via chromatographic separation) so as to provide for various levels of

purified theaflavins within such tea products - such as tea powders (see entire document including col 1, line 4 - col 6, line 34; Examples; claims).

Consequently, the claimed product appears to be anticipated by each of the cited references.

In the alternative, even if the claimed product is not identical to one or more of the referenced products with regard to some unidentified characteristics, the differences between that which is disclosed and that which is claimed are considered to be so slight that the referenced products are likely to inherently possess the same characteristics of the claimed products particularly in view of the similar characteristics which they have been shown to share. Thus, the claimed product would have been obvious to those of ordinary skill in the art within the meaning of USC 103. If necessary, the adjustment of particular conventional working conditions (e.g., substituting a functionally equivalent and/or interchangeable enzyme such as tyrosinase for one or more of the other enzymes disclosed by the cited prior art references: e.g., another polyphenol oxidase, laccase, peroxidase, tannase, in making such a black tea product - especially with regard to those references expressly teaching that a tyrosinase may be employed therein; and/or exposing such green tea products to tyrosinase degradation for a suitable period of time so as to provide for various desired levels of pigments and/or theaflavins therein) is deemed merely a matter of judicious selection and routine optimization which is well within the purview of the skilled artisan.

Accordingly, the claimed invention as a whole was at least *prima facie* obvious, if not anticipated by each of the cited references, especially in the absence of sufficient, clear, and convincing evidence to the contrary.

With respect to the USC 102/103 rejections above, again please note that the Patent and Trademark Office is not equipped to conduct experimentation in order to determine whether Applicants' product differs and, if so, to what extent, from those disclosed by the cited references. Therefore, with the showing of the references, the burden of establishing non-obviousness by objective evidence is shifted to the Applicants.

In addition (with respect to some of the teachings of some of the references cited above), again please note that in product-by-process claims, "once a product appearing to be substantially identical is found and a 35 U.S.C. 102/103 rejection [is] made, the burden shifts to the applicant to show an unobvious difference." MPEP 2113. This rejection under 35 U.S.C. 102/103 is proper because the "patentability of a product does not depend on its method of production." In re Thorpe, 227 USPQ 964, 966 (Fed. Cir. 1985).

It is again further noted that the cited references do not necessarily teach that their black tea/theaflavin-rich products can be used in the manner instantly claimed; however, the intended use of the claimed product does not patentably distinguish the product, *per se*, since such undisclosed use is inherent in the reference products. In order to be limiting, the intended use must create a structural difference between the claimed product and the prior art products. In the instant case, the intended use does not create a structural difference, thus the intended use is not limiting. Please again note that when applicant claims a product in terms of function and the product of the prior art appears to be the same, the Examiner may make a rejection under both 35 U.S.C. 102 and 103, expressed as a 102/103 rejection (MPEP 2112).

Applicants' arguments concerning the USC 102/103 rejections above have been carefully considered but are not deemed to be persuasive of error in the rejections. Applicants argue that none of the cited references teach extracting at least once a mixture of said green tea polyphenols and tyrosinase after a period of oxidation reaction there between which products theaflavins but before the substantial formation of compounds other than theaflavins. However, it is reemphasized that the claims are drawn to a product (claimed as a product-by-process) - a black tea product containing high levels of various naturally-occurring theaflavins (the pigmented oxidized compounds formed from green tea) therein. The products taught by each of the cited references appear to anticipate, or at least render obvious, the instantly claimed product - for the reasons fully discussed above.

As set forth in the previous Office action and above - with respect to the USC 102/103 rejections, please note that the Patent and Trademark Office is not equipped to conduct experimentation in order to determine whether Applicants' product differs and, if so, to what extent, from those disclosed by the cited references. Therefore, with the showing of the references, the burden of establishing non-obviousness by objective evidence is shifted to the Applicants.

Also, as set forth in the previous Office action and above (with respect to some of the teachings of some of the references cited above) - please note that in product-by-process claims, "once a product appearing to be substantially identical is found and a 35 U.S.C. 102/103 rejection [is] made, the burden shifts to the applicant to show an unobvious difference." MPEP 2113. This rejection under 35 U.S.C. 102/103 is proper because the "patentability of a product does not depend on its method of production." In re Thorpe, 227 USPQ 964, 966 (Fed Cir 1985).

Further, with respect to the USC 103 portion of the USC 102/103 rejections above, please again note the following: In the alternative, even if the claimed product is not identical to one or more of the referenced products with regard to some unidentified characteristics, the differences between that which is disclosed and that which is claimed are considered to be so slight that the referenced products are likely to inherently possess the same characteristics of the claimed products particularly in view of the similar characteristics which they have been shown to share. Thus, the claimed product would have been obvious to those of ordinary skill in the art within the meaning of USC 103. If necessary (i.e., if not anticipated), the adjustment of particular conventional working conditions (e.g., substituting a functionally equivalent and/or interchangeable enzyme such as tyrosinase for one or more of the other enzymes disclosed by the cited prior art references: e.g., another polyphenol oxidase, laccase, peroxidase, tannase, in making such a black tea product - especially with regard to those references expressly teaching that a tyrosinase may be employed therein; and/or exposing such green tea products to tyrosinase degradation for a suitable period of time so as to provide for various desired levels of pigments and/or theaflavins therein) is deemed merely a matter of judicious selection and routine optimization which is well within the purview of the skilled artisan.

Double Patenting

Claims 1, 3, 5, 7, 9, and 12 stand rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claim1-6 of U.S. Patent No. 6,602,527. Although the conflicting claims are not identical, they are not patentably distinct from each other because both are drawn to a black tea product formed by tyrosinase exposure. Further, please note that the instant claims encompass and/or are encompassed by the U.S. '527 claims.

Applicants stated within the reply filed 14 May 2009 that a Terminal Disclaimer was concurrently submitted therewith. However, the Office did not (and has not) received a Terminal Disclaimer. Accordingly, the obviousness-type double-patenting rejection stands for the reasons set forth above.

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Conclusion

No claim is allowed.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Christopher R. Tate whose telephone number is (571) 272-0970. The examiner can normally be reached on Mon-Thur, 6:30-4:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Terry McKelvey can be reached on (571) 272-0775. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Christopher R. Tate/
Primary Examiner, Art Unit 1655